UNITED NATIONS

TD

United Nations Conference on Trade and Development

Distr.
LIMITED

TD/B/C.1/TUNGSTEN/L.30/Add.1
21 November 1991

Original: ENGLISH

TRADE AND DEVELOPMENT BOARD
Committee on Commodities
Committee on Tungsten
Twenty-third session
Geneva, 18 November 1991

DISCUSSIONS OF THE SESSIONAL WORKING GROUP

CHAPTER II

Consideration of industry views on particular aspects of the tungsten industry
(Agenda item 5)

1. At its twenty-third session, the Committee was addressed by two guest speakers, Professor Zheng Ji Tao of Zhuzhou Cemented Carbide Industry Company (China) and Dr. Wolf-Dieter Schubert of the Institute of Chemical Technology of Inorgonic materials at the Technical University of Vienna.

2. The presentation of the first speaker was on research and development of tungsten metal and tungsten carbide powder in the past ten years. He recalled that in the 1950s China was dependent on imported technology. Although advanced technology and equipment are still imported such as from Sandvik (Sweden) and other western countries, China also pursued its own efforts in the country's renowned factories, universities, colleges as well as research institutes like Zhuzhou Cemented Carbide Works, Central South University of Technology, Beijing University of Iron and Steel Technology, the General Research Institute of Nonferrous Metals and the General Iron and Steel Research Institute. In conclusion, he said that world-wide research and development of tungsten powder and tungsten carbide powder had not only a long history but such research and development was also being intensified. In this respect, he referred to international co-operation in the demain of research

and development. In the past ten years, the focus in the area of tungsten metal and tungsten carbide powder was still on the dynamics of hydrogen reduction and carbonization, the behaviour of these elements, and powder morphology and particle size.

3. The second speaker presented the general trends in current research and development activities relating to tugsten and tungsten alloys, and focused on selected research items which he felt were typical of today's research and development in tungsten compounds. In this respect, he covered three main areas, namely: The background of research and development activities with respect to the general market situation and current trends in materials technology; the typical tungsten consumption pattern to illustrate the possible impacts of research of development activities based on the end-users market; and research and development activities in the different segments within the afore-mentioned pattern in relation to their economic importance. He indicated that research and development had focussed on the engineering of powders and alloys (i.e. built-in quality, process economy and new manufacturing processes), rather than on spectacular new end-uses for tungsten. He also addressed issues relating to product substitution, waste recycling and environmental considerations and referred to a number of areas where new end-uses were opening up.

4. During the question time, comments were made regarding research and development in China, the relationship between research and development and product diversification in Zhuzhou Cemented Carbide Work, the characteristics of government-funded and industry-funded research and development projects and the problem of reversibility in the process of substitution. Clarifications were provided by the guest speakers during the discussions.